

**Claim Listing:**

1. (Original) A method of forming an array of polymers on a surface of a substrate, comprising:

providing a substrate having a first surface coated with functional groups protected with a photolabile protecting group, and a second surface having a layer disposed thereon, said layer including one or more of an index matching compound, a light absorbing compound and an antireflective compound; and

sequentially activating and coupling monomers in different selected regions of said substrate to form a plurality of different polymer sequences in different known locations on said surface of said substrate, wherein said activating step comprises directing an activation radiation at said first surface of said substrate.

Claims 2-49 (Cancelled)

**[REMAINDER OF PAGE INTENTIONALLY BLANK]**